**Dependent Variable: Total cases per million**

**Model: Negative Binomial Regression Model**

**Date up to 31/06/2021**

**VIF**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | World | | Top 20 Countries | | Rest of the World | |
|  | 1st Model | 2nd Model | 1st Model | 2nd Model | 1st Model | 2nd Model |
| The percentage of people aged 65 and above | 4.45 | 3.37 | 10.37 | - | 3.57 | 2.64 |
| Population density | 2.70 | 2.14 | 2.02 | 1.17 | 2.16 | 1.99 |
| COVID-19 total tests (/1000) | 10.12 | - | NA | NA | 1.35 | 1.29 |
| GHSI | 3.95 | 2.67 | 2.63 | 1.35 | 3.23 | 2.49 |
| GDP | 6.26 | 2.27 | 4.04 | 2.09 | 6.97 | - |
| WGI | 5.59 | 3.19 | 14.97 | - | 3.58 | 3.55 |
| Obesity (%) | 1.81 | 1.39 | 2.89 | 2.64 | 2.01 | 1.87 |
| Vaccination (/100) | 5.31 | 3.07 | 3.44 | 1.62 | 2.87 | 1.65 |

\*\* 1st model using all variables, 2nd model excluding highest VIF (>5).

NA = Data isn’t available on that day.

**Negative Binomial Regression Model**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | World | | Top 20 Countries | | Rest of the World | |
|  | IRR | P-Value | IRR | P-Value | IRR | P-Value |
| The percentage of people aged 65 and above | 0.96 (0.89-1.02) | 0.112 | - | - | 1.07 (0.93-1.25) | 0.223 |
| Population density | 1.01 (0.99-1.01) | **<0.001** | 1.01 (1.01-1.02) | **0.015** | 1.00 (0.99-1.01) | 0.524 |
| COVID-19 total tests (/1000) | - | - | NA | NA | 1.01 (0.99-1.01) | 0.131 |
| GHSI | 1.01 (0.99-1.01) | 0.967 | 0.98 (0.99-0.99) | **0.045** | 0.99 (0.93-1.06) | 0.925 |
| GDP | 1.01 (1.01-1.02) | 0.915 | 1.01 (1.00-1.01) | 0.251 | - | **-** |
| WGI | 2.42 (0.82-1.21) | **<0.001** | - | **-** | 0.16 (0.02-1.12) | **<0.001** |
| Obesity (%) | 1.13 (1.01-1.05) | **<0.001** | 1.03 (0.97-1.08) | **0.251** | 1.03 (0.94-1.12) | 0.404 |
| Vaccination (/100) | 0.99 (0.98-0.99) | 0.561 | 0.98 (0.98-1.00) | 0.144 | 1.03 (0.99-1.09) | 0.081 |